

Corridor Mobility Improvement Account (CMIA) Overview

Summary

Corridor Mobility Improvement Account funding of approximately \$6.4 billion is proposed on 30 state highway corridors. These 67 improvements reduce daily vehicle hours of delay in high congestion corridors, improve travel times and strengthen connectivity for all areas of the State. The package reflects geographic balance based on the broad regions identified in the CMIA Guidelines. System capacity is expanded and enhanced with construction of 529 miles of new high occupancy vehicle (HOV) and general purpose lanes. Critical interchanges are improved and HOV direct connectors constructed for highest sustained mobility. Connectivity is improved to all major regions of the State through investments in key infrastructure improvements in rural and high growth areas.

Currently travelers on urban freeway corridors for which CMIA improvements are proposed experience nearly 296 thousand daily vehicle hours of delay, more than one-half of all statewide delay. Major improvements are proposed in this package to reduce that delay. Examples of critical operational improvements in major urban regions are construction of the I-680/80/12 interchange in the Bay Area, construction of the State Route 22/I-405 and I-405/605 HOV direct connectors in Orange County, completion of the north bound HOV lane on the I-405 in Los Angeles County, and construction of HOV lanes on the I-805 and I-5 in San Diego. Substantial investment is proposed on the highly congested State Route 91 corridor in Orange and Riverside Counties, on the U.S. 101 corridor through the Bay Area, and on other highly congested corridors.

Connectivity improvements are proposed on interregional routes connecting major areas of the State for heightened mobility between rural, suburban and urban areas. Examples of improvements in this category include construction of the Willits bypass on U.S. 101 in the north state, improvement of State Route 58 to an expressway facility, and completion of State Route 12, connecting the urbanized area of Napa to I-80. Access to jobs, housing, markets and commerce is strengthened statewide through all investments in the package.

Preserving Mobility Gains

Managing these corridors, and all urban freeway corridors, for highest productivity through sound principles and practices of system management, based on performance measurement, is a critical component of preserving mobility gains achieved with CMIA funded improvements. Regional agencies throughout the State's urbanized areas have committed to coordinating with the Department and local agencies to prepare corridor management plans (CMPs) in areas of CMIA investment. Most have initiated preliminary charters or memorandums of understanding with the Department as evidence of a process commitment to system and corridor management. (Documentation of these commitments have been provided to Commission staff.) All agencies that are part of the Strategic Growth Plan Blueprint Learning Network and receiving grant funds for Blueprint planning, linking land use and transportation more wisely, are part of this effort. CMP work plans are in place for most corridors. The corridors extend beyond CMIA project limits, capturing the logical end points of corridor segments based on common traffic

volumes, congestion levels and operating characteristics. The first generation of CMPs are expected in June 2008. Beginning in late 2006 and continuing in 2007, current corridor performance is being assessed, with next steps to include identifying all causes of delay, modeling a variety of strategies, actions and additional improvements to remove delay, and preparing the CMPs. The CMP will be the guide to improve, manage and operate the corridor across all jurisdictions and modes for highest sustained mobility outcomes. Corridor performance will be continually measured and evaluated through an iterative process and plans updated biennially.

A summary table of all CMIA investments grouped by corridor is included following this overview. This grouping of improvements by corridors and related information, such as daily vehicle hours of delay in the corridor, underscores the importance of maintaining a corridor view in the CMIA program and not merely a project view. The emphasis must be on system and corridor management across all jurisdictions and modes, based on performance measurement.

Following the summary table is a map set of all CMIA investments by region with daily vehicle hours of corridor delay shown, project type, parallel major local arterials and passenger and freight rail lines. Maps display local arterials and rail to emphasize the importance of viewing the transportation corridor and system as a whole for comprehensive system management.

Complementary Programs

Several complementary components of the Bond Act are being carried out by state, regional, local and modal agencies, working in tandem with the CMIA Program to reduce congestion and improve mobility. Four billion dollars from the Public Transportation Modernization, Improvement, and Service Enhancement Account is identified for capital expansion and improvement of intercity passenger rail, urban and commuter rail, and transit. Two billion dollars from the Local Streets and Road Improvement, Congestion Relief, and Traffic Safety Account is identified for local roadway rehabilitation statewide and improved operations of major local street arterials along congested freeway corridors with projects such as signal synchronization in urban areas. Two billion dollars augments the State Transportation Improvement Program. Seven hundred fifty million dollars (\$750 million) is designated to the Highway Safety, Rehabilitation, and Preservation Account for purposes of the State Highway Operation and Protection Program (SHOPP) with \$250 million of this amount to fund local arterial management projects. One billion dollars in the State-Local Partnership Program contributes towards mobility gains.

Mobility gains from CMIA investments in congested corridors will increase from coordinated investments across Bond categories by all agencies. Most of the highest congested corridors are paralleled by major local arterials for which traffic flow can be improved to increase total corridor carrying capacity. Transit and urban and commuter rail parallel many of these corridors, as do the Pacific Surfliner and the Capitol Corridor intercity passenger services. Investments from these complementary Bond programs contribute towards comprehensive improvement of corridor performance and are a strategic packaging of investments to achieve the highest DVHD reductions and improve reliability of travel times for all Californians.

Benefit/Cost Analyses (B/C)

What it Means and Considerations for Use in Funding Decisions

The Department of Transportation's CAL B/C (benefit/cost) model was used to evaluate CMIA project proposals to determine the rate of return of the investment based on project costs and mobility and safety benefits gained. The model is based on a 20-year benefit cycle. Each nominated project was given a B/C ratio. CAL B/C has been used within the Department since 1996 to evaluate a variety of project types and is a standard input to each STIP cycle for ITIP projects. Its use is strongly encouraged for RTIP projects.

The outputs of the model provide information to the planning and decision making process; however, the outputs should never be the sole determinant of project benefits. Typically, more traditional projects with low costs (such as inside widening for high occupancy vehicle lanes where no right of way acquisition is required) or projects on corridors with high delay hours result in high B/Cs. Transportation Management System (TMS) projects such as ramp metering have typically the highest B/Cs due to lower cost and high benefits for vehicle delay reduction on the state highway corridor. Projects that are high cost, regardless of the amount of delay, will result in a lower B/C. This is also true for connectivity improvements in rural areas that are high cost with low traffic volumes.

CMIA investments are proposed for several critical improvements for which the B/C's are in the lower category. This is the case, as an example, for two essential infrastructure investments in Southern California and the Bay Area. In Southern California, the Los Angeles I-405 north bound high occupancy vehicle lane (HOV) completes a major segment gap for the regional HOV network and results in benefits not fully captured in the B/C alone. The B/C for this project is 1.0:1 simply due to its higher cost and under-estimation of benefits to the larger regional state highway network beyond I-405 alone. The project is vital for HOV system completion, improved system operations and management and for sustained delay reduction. An example in the Bay Area is the improvement to the I-80/680/12 interchange complex in Solano County. This extensive project will result in improved travel time and reduced delay for people and goods movement on two congested Interstates in the Bay Area and a major state highway serving the Napa urbanized area. The B/C for the project is also 1.0:1.

Improvements to major rural corridors that are the framework for statewide connectivity, such as, US 101 (Willits Bypass) at 1.3:1 and State Route 58 (expressway construction) at 0.5:1, likewise have lower B/C's. The lower B/C's are a function of the project cost and traffic volume. These are, however, vital improvements for connectivity in major regional areas not now well served by higher standard state highways (freeway/expressway). In the case of the Willits Bypass, interregional travelers experience significant delay during recreational peak periods and major holidays with impacts to the north state economy dependent upon tourism. In the case of State Route 58, this interregional corridor connects I-40 freight traffic traversing west to State Route 99 in the central valley and to the I-5 corridor. The corridor traffic includes over 33 percent five axle trucks.

CMIA Nomination Package

The package includes 67 projects in total (including detection reserve) with an average B/C ratio for the 66 stand alone projects of 1.9, average rate of return of 10.8 percent, and net present value of approximately six billion dollars. Nine projects have B/C's of 3.0:1 and higher, ranging to 8.1:1. These projects are in corridors with significant current delay and several are lower cost operational improvements. Ten projects are in the 2.0:1 to 2.7:1 range. These include a mix of corridors with moderate congestion. Most projects (32) are in the 1.1:1 to 1.8:1 range. These again are a mix of improvements on lower, moderate, and high congested corridors with multiple high occupancy vehicle lane projects, some freeway gap closures and two small-town bypasses on major interregional corridors (Willits – US 101 connecting the northern coastal communities and Brawley – SR 78 serving Imperial County). The Lincoln Bypass in the high growth Placer County area is also in this category. Eight projects are in the 1:0:1 range. Seven projects are below 0.9:1, with four projects at 0.5:1 and one at 0.2:1 (Doyle Drive). Each of these seven projects have mobility, connectivity or related benefits. The low B/C is simply a factor of project cost and, in some cases, lower traffic volumes.